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**Radar  
Roy**

# **RADAR ROY'S BUYERS GUIDE**



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I welcome comments. Please click on the below link to email me:



Thank you for subscribing to my Radar Detector Buyers Guide  
and if you like it, consider e-mailing it to a friend!

For a limited time, subscribers to my Buyers Guide can save 10% on Radarbusters.com.

As a special gift to the subscribers of my Radar Detector Buyers Guide, I have obtained 500 Gift Cards that you can use on the RadarBusters Website!

This is a limited time special, so act fast; when the last card is used the promotion will end.

To activate your card, you must click on the image below or go to <http://www.Go.RadarDetector.org/radarbusters> and use promo code: **RADARROY** at Checkout.

A promotional banner for RadarBusters.com. The banner features a man in a blue shirt and a white cap with a radar logo, holding a blue radar detector. The background is a blurred image of a road. The text on the banner includes the RadarBusters.com logo, a 'Limited Time Offer!' tagline, a large 'SAVE 10%' discount, the condition 'WHEN YOU SPEND \$300 OR MORE', a 'SHOP NOW!' call to action, and the promo code 'FB8259 at check out'.

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## INTRODUCTION

### 20 YEARS IN LAW ENFORCEMENT

In 1978, I joined the Maricopa County Sheriff's Office in Phoenix, Arizona as a deputy sheriff.

I became engaged in all areas of law enforcement, specializing in both narcotic and traffic enforcement. Twenty years later, I retired at the rank of Lieutenant.



Radar Roy is a Certified Expert!

Early in my career, I became certified as a traffic radar instructor and taught hundreds of police officers about the basic and advanced procedures of traffic enforcement.

I also was certified for over ten years by the State of Arizona as a Defensive Driving Instructor.



### GIZMO LOVER

From the very beginning, I have always had a fascination with electronic "gizmos." Because of this fascination for all things electronic, I became licensed as a general amateur radar operator (KC7YCM) and became an official computer "geek."

### RADARBUSTERS

Shortly after my retirement, I began [RadarBusters](http://RadarBusters.com) Web site as a medium to test various speed countermeasure devices, e.g., radar detectors, radar and laser jammers, and stealth coatings.



I also provided tips to motorists on how to avoid costly traffic tickets.

A few years later, we expanded our operation and began to sell only the “cream of the crop” devices that passed my rigorous testing standards.

Success!

Because of my dedication and enthusiasm to only the best, [RadarBusters](#) grew to be the largest speed counter measurement Web site in the industry, and I became regarded as the expert in the industry.

In 2007, Netshops, one of the Internet's largest “niche” retailers approached me with an offer to purchase *Radarbusters*.



We took them up on their offer, removing myself from the retail portion of this industry and giving me an opportunity to go back to my roots and becoming a professional consultant for the industry.

## GENERAL SCHWARZKOPF OF RADAR DETECTORS

I have been interviewed and quoted by countless television, radio and newspapers and have published several articles for industry leading automotive and motorcycle magazines.

The magazine, *Mustang Enthusiast*, wrote that my articles were the most educational and informative for the radar detector industry.



*Luxury Exotics Auto* magazine nicknamed me the “General Schwarzkopf of Radar Detectors”.

## BECOME AN EDUCATED CONSUMER!

It is my intention to provide you the following information and resources about radar detectors and the industry so that you will become an educated consumer and choose only the best products for your driving situations.



## CHAPTER ONE – MANY CHOICES

### CONFUSED?

There are big detectors, small detectors, expensive detectors and cheap detectors. Some have LED displays and others have LCD's. Some come with cords, some without; others mount on the dash, some behind the grill.



The choices are countless and sometimes confusing.

### RADAR ROY'S YEARS OF EXPERIENCE

As a retired police officer and a certified traffic radar instructor, I have been involved in the speed counter measure industry for over 15 years.

My priority is to help you select the best radar detector and/or laser jammer for your budget and also help you understand the many features that are a must in your selection.

### WHAT YOU MUST KNOW!

First, you must understand the purpose of a radar detector. Regardless of the manufacturers' claims, it is to protect you from getting a deserved or undeserved speeding ticket from a police officer using a radar gun.

Regardless of the manufacturers' sometimes false claims, radar detectors are NOT very effective at all in protecting you against a police laser gun.

Also, new users of detectors have to understand that radar detectors are not "cop car" detectors.

Just because you see a police car parked on the side of the road or driving behind you and your detector does not alert, does NOT mean that it is broken. Perhaps the officer doesn't have a radar gun or if he does, perhaps it is turned off.

### OVER 15 MILLION TICKETS ISSUED PER YEAR!

Over 15 million radar speeding tickets are issued annually and one of them might be yours.

To begin, we first want to look at the history of radar and laser enforcement so you will have a better understanding of how radar and laser works.



## CHAPTER TWO – HISTORY OF RADAR

### FUZZBUSTER - FIRST RADAR DETECTOR

When the national speed limit was reduced because of the Arab Oil Embargo of the early 1970s, Dale Smith invented the first radar detector, the "FUZZBUSTER."

The "FUZZBUSTER" became so popular that it became a synonym for all radar detectors. SNOOPER'S "SUPER SNOOPER" radar detector was released a short time later.



#### X Band

These early radar detectors were very primitive in their functions. They only had the ability to search for the X band, which was introduced in 1965.

### S BAND

Its successor, the S band, took two fully trained officers to operate the first S band traffic radar system in Glastonbury, CT. Radar for speed enforcement got its biggest boost when the national 55 mph speed limit was initiated.

### K-BAND: THE SECOND MILESTONE

KUSTOM SIGNALS announced the first moving K band radar gun, the MR-7, in 1972, which is considered the second milestone in radar gun history.



### "INSTANT ON" AND KA BAND

The "Instant-On" transmission trigger soon followed as an anti-radar detector feature. In the early 1990's, a third radar band, Ka, saw a gigantic leap as APPLIED CONCEPTS INC, (STALKER RADAR) introduced the first "digital" radar gun at 34.7 GHz.



## LASER GUNS

Laser guns entered the law enforcement arsenal in the late 1980's with [LASER TECHNOLOGIES INC.](#) release of the LTI 20/20 signal shot device.

## OFFICIAL STANDARDS ADOPTED

In January of 1994, The [NATIONAL HIGHWAY SAFETY ADMINISTRATION](#) (NHTSA) issued revised standards for radar gun accuracy and officer training.



The "Model Minimum Performance Specifications of Police Traffic Radar Devices" was issued after the [NATIONAL BUREAU OF STANDARDS](#) looked at police radar guns and found dismal accuracy and performance results.



The [INTERNATIONAL ASSOCIATION OF CHIEFS OF POLICE](#) (IACP) now must approve and test police radar and laser guns to ensure quality and accuracy.



## CHAPTER THREE – POLICE MISTAKES

### 25% OF ALL RADAR TICKETS ARE IN ERROR

Although all radar guns and laser guns are tested for accuracy by police agencies, their operators still make many mistakes.

It is estimated that over 25% of all radar tickets are in error. The most noticeable and common mistakes include shadowing, RFI interference, cosine error and mechanical interference.

### SHADOW ERROR

Shadow Error occurs when the moving radar's "Low Doppler" incorrectly locks onto a large metal object like an 18 wheeler in front of the patrol car and adds the speed differential to the opposite lane target vehicles speed.

### VSS

Low doppler is used to determine the patrol vehicles speed. Shadowing has and is being eliminated by interfacing the police radar gun into the vehicles speed sensor. This is known as VSS or Vehicle Speed Sensor interface.

Now that the patrol car's speed is obtained by the vehicles own speed sensor, the low doppler signal from the police radar gun can be compared and accuracy is increased.

### RFI

RFI stands for Radio Frequency Interference. Many poorly shielded radar guns speed readings will go blank when a commercial radio or police radar is keyed up.

### COSINE ERRORS

Cosine error is standard with both radar and laser guns.

The greater the transmission angles of the gun to the target vehicle, the greater the error. However, the angle is always to the advantage of the driver. It always shows a speed less than the actual speed.

An example would be a speed radar gun transmitting at a 10' degree angle from the approaching target vehicle. The target vehicles actual speed is 60 mph but the radar gun shows 59 mph.

### THE MOST TROUBLING ERROR

The third error is the most troubling. In 2004, the [PENNSYLVANIA STATE POLICE](#) purchased hundreds of new radar guns. They were clocking rocks at 70 mph.

This is an example of mechanical interference as the police car's heater/air conditioner fan was producing the erroneous speed reading. The fact remains, radar and laser guns still make mistakes.



### LANDMARK RULING

[NEW JERSEY SUPERIOR COURT](#) Judge Reginald Stanton issued a landmark ruling in 1996.

The ruling states that laser guns may not target vehicles past 1,000 feet due to the gun's one millididadian beam divergence of 36" at that distance. Anything further than 1,000, the laser gun might incorrectly target an adjacent vehicle.



### FIGHT BACK AND WIN!

A user on our [RadarDetector forum](#) that goes by the nickname of Da Mail Man recently found himself falsely accused of speeding because of the "shadowing" effect.

Because of the information provided here and on other forums, he fought back and submitted his [trial by decoration](#) and won!

I wish to thank Da Mail Man for allowing you to [download the legal documents](#) he used to beat his unjust citation so you can build your own defense if the need ever arises.

## CHAPTER FOUR – LEGAL ISSUES

### WHERE ARE THEY ILLEGAL?

The use of a radar detector in a passenger vehicle is legal in all states with the exception of Virginia, Washington D.C. and on military bases.

**RADAR DETECTORS ARE ILLEGAL IN ALL COMMERCIAL VEHICLES WEIGHING OVER 10,000 POUNDS.**

In Canada, the only three provinces that allow their use are Alberta, British Columbia and Saskatchewan. Many overseas countries also ban their use, such as Portugal, Finland and Spain.

### SPECTRE: YOUR ARCH RIVAL

In areas that radar detectors are illegal, law enforcement officers use a device called the Spectre. The Spectre is able to detect the use of radar detector in your car or truck.



### LASER JAMMERS

Laser Jammers are illegal in the states of South Carolina, Nebraska, Minnesota, Utah, California, Oklahoma, Virginia, Colorado, Illinois, Texas, Tennessee and Washington DC and are regulated by the Federal Food and Drug Administration.



### RADAR JAMMERS

Radar Jammers are illegal in all 50 states and are regulated by the FCC.



### USING LASER JAMMERS IN OUTLAWED STATES

If you decide to use a laser jammer in one of the states that they are outlawed, you can use the following tactic to reduce to chances of being caught.

Once your laser jammer activates, immediately start slowing down while simultaneously powering off your laser jammer. This way the officer can register your speed, thus reducing his suspicions that you have a jammer



## CHAPTER FIVE – RADAR DETECTOR TYPES

### FOUR TYPES OF RADAR DETECTORS

There are now four types of radar detectors:

- Customary corded units
- Cordless units that use batteries
- Remote units that are permanently mounted and concealed in your vehicle
- and what I would classify as Crossover detectors which are windshield mounted units however concealed.

### REMOTE MOUNTED RADAR DETECTORS

The ADVANTAGES of having a remote mounted radar detector are:

- In Virginia, Washington DC, several provinces in Canada and countries such as France radar detectors are illegal. Remote mounted radar detectors are more inconspicuous and less likely to be seen by law enforcement.
- Concealed units are also inconspicuous to thieves. Your detector will be less noticeable than a unit hanging on the windshield.

### DISADVANTAGES

- Higher costs: A remote mounted radar detector typically is more expensive than a dash mounted unit. This is because of the different modules that are used.
- As an example, both the [Escort 9500ci](#) and the [Bel STi R Plus](#) have an antenna that mounts behind the grill, two remote mounted laser antennas (front/rear), an external GPS antenna, an interface device (in which everything plugs into), display module and a control panel.
- Remote mounted radar detectors should be professionally installed.





## CORDED DETECTORS

The most popular radar detectors are the corded ones designed to either be plugged into your car's cigarette lighter or into the fuse box and then mounted on the windshield using suction cups.

Corded detectors offer a number of advantages over remote mounted units and cordless detectors that include:

- Ease to install: Just mount and plug in. It takes seconds and can be easily transported from car to car.
- Ability to detect all the bands: MPH Industries has developed "POP Radar" and now offers it in many of their newer radar guns as a way to defeat radar detectors.
- Because cordless radar detectors cycle their power on and off in milliseconds, there would be no possible way that a cordless could detect the new POP mode when it is activated on these radar guns. This will better protect you from speed traps.
- No batteries: Depending on how often you drive, you could be replacing your batteries every three months.



## CORDLESS DETECTORS

Although you will be free of dangling cords, I recommend that if you can stay with a corded detector instead of going cordless, do so!

In order to conserve battery life, cordless radar detectors turn themselves off and on in milliseconds. Because of this you will be sacrificing:

- Range and sensitivity: Cordless radar detectors typically have 30% less range than a corded radar detector.
- The ability to detect POP radar: As POP radar transmits in a burst of 67 milliseconds; many current models of cordless detectors are not able to detect POP radar.

- Because the detector itself is designed to operate on batteries, plugging it in will not increase the range or sensitivity.
- If you want to free yourself of the power cord that plugs into the cigarette lighter, I would recommend that you consider a direct wire cord for your radar detector. This will allow you to plug your detector into the fuse box of your car and then you can conceal the wire by tucking it under the molding.

If you were still sold on cordless, then I would recommend that you consider purchasing a higher end cordless radar detector. The [Solo 3](#) from Escort is the ONLY high-end cordless radar detector made today and it has the highest range and sensitivity.



## CROSS OVER RADAR DETECTORS

In 2012, Escort developed the [SmartRadar detector](#) which I would classify as a crossover between a dash mounted radar detector and a remote mounted unit.

The main module of Escort's SmartRadar detector is a small black plastic box that mounts to the top of your windshield. This box contains the heart of the radar detector and has no physical appearance as being a radar detector.

The display module then attaches main module though an external cable. The display module also contains the power switch, the mute button, the volume control and the programming switch.

This display module can then be concealed on the dash or the mirror.

The SmartRadar can also be interfaced through your iPhone or Android phone with [Escort Live](#).

With Escort Live, you can operate and program your SmartRadar through your iPhone/Android while also becoming a part of a growing radar detector community by sharing real time alerts with other [Escort Live users](#).

ADVANTAGES of a crossover detector:

- Having a remote type, high performance radar detector which is easy to install without the high cost of traditional remote mounted units.

#### DISADVANTAGES of a crossover detector:

- The SmartRadar detector is not stealth against the Spectre RDD meaning that your radar detector can be detected by police in areas where radar detectors are illegal
- The SmartRadar detector has 80% of the performance/range of the traditional remote mounted detectors such as the [Escort 9500ci](#) and the [Bel STi R Remote](#).

## CHAPTER SIX – LASER ENFORCEMENT

### BIG DIFFERENCE

There is a big difference between police radar and laser enforcement!

### RADAR ENFORCEMENT

Over 80% of the traffic enforcement devices used by police today are radar guns.

Radar guns transmit a microwave radio signal that is sent out, reflected off a moving object such as a car, and bounced back to the radar gun where the radio waves are analyzed by computer and your speed is displayed to the officer.

These radio waves can travel great distances and are very wide, making it easy for a good radar detector to pick-up stray signals, giving you plenty of advanced warning of the officer ahead.

Radar guns can also be hand held or mounted to the patrol car and can be used while the officer is stationary or moving.



### LASER ENFORCEMENT

A growing trend today is police departments moving to laser (lidar) enforcement. It is estimated that there are over 60,000 police laser guns in use today in the USA.

These guns transmit a beam of infrared light at a frequency of 904 nanometers. This light beam is only 18 inches wide at 500 feet and gets smaller as you approach the officer.

This narrow light beam is aimed by the officer to a reflective area on your vehicle, such as your headlamps or front license plate.



The officer can only use the laser gun while he is stationary. Unless your radar detector is within this 18" circle, or it picks up "scatter" from the beam, your radar detector will never alert. And by chance it does, it is too late as the officer has already obtained your speed.

The use of lidar varies from state to state. As an example, police in Hawaii use laser exclusively. Florida and Ohio are split 50/50, with most local police departments using laser and highway patrol officers using radar. In Pennsylvania, police laser guns are not used at all.

## LASER COUNTERMEASURE DEVICES

There are several products that are available that can protect you against police laser.

### VEIL STEALTH COATING

When police target your vehicle with a lidar gun, they normally target the front, and aim at either the headlights or license plate.

The [VEIL STEALTH COATING](#) was developed to reduce the reflectivity of police lidar, when applied to these areas.

During the Speed Measurement Laboratories Radar Detector Shoot Out in 2006, [VEIL](#) was found to reduce the range of a police laser gun as much as 70%.

If your radar detector is mounted correctly so it does activate to a laser alert, the extra time it will take for a laser gun to acquire your speed with the Veil, may save yourself from a citation.



## LASER JAMMERS

First off there are two basic types of laser jammers, i.e., active and passive.

## PASSIVE LASER JAMMERS

Passive jammers claim that they can disrupt police radar and/or laser signal by reflecting back to the officer's gun.

These passive devices **do not** work, and I am so confident that they will fail in protecting you, that [I offer a \\$50,000.00 reward](#) to anyone that can show me a passive jammer that does work.



## ACTIVE LASER JAMMERS

On the other hand, active laser jammers are very effective in jamming police laser.

Once an active laser jammer senses the presence of a police lidar beam, it activates and sends out its own light beam, overpowering the police laser gun.

I explain the theory this way: "I shine a hundred candle power flashlight at you and you respond by shining a million candle power flashlight at me. Your more powerful flashlight washes out mine."

All quality active laser jammers are designed to mount in the grill area of your vehicle and some, like the [ESCORT ZR4](#) come with an additional laser head to mount in the rear.

As police target either the headlamps and/or front license plate you should consider models that have two or more heads that would mount between your headlamps and the license plate.



If you drive a larger vehicle such as full sized SUV you should consider a model that has four heads - either the [Blinder HP-905 quad](#) or the [Laser Interceptor](#) to provide the additional coverage.

However, if you drive a smaller subcompact car, the [Blinder HP-905 dual](#) would be sufficient to protect the front portion of your car. If you wanted front and rear protection, then you should consider and install the Blinder



HP-905 quad two heads to the front and two head to the rear.

The two top Laser Jammers made today are the [Laser Interceptor](#) and the Blinder HP-905

Laser Jammers are illegal in the states of South Carolina, Nebraska, Minnesota, Utah, California, Oklahoma, Virginia, Colorado, Illinois, Texas and Washington DC.

In states where laser jammers are illegal, it would be advisable to power the units down after they go active and you have slowed down, to avoid suspicions from law enforcement.

An advantage with the [Blinder HP-905](#) is that you can instantly change the programming of the unit to make it a parking sensor only, which is legal in all 50 states and then also program it to automatically deactivate jamming in a few seconds, allowing you ample time to slow down.

## CHAPTER SEVEN – PERFORMANCE IS KING

It doesn't matter how many bells and whistles it has or how stylish it is, if a radar detector doesn't perform, it is not worth owning.

Many radar detectors are loaded with popular features, they look good on your dash and they are user friendly. Unfortunately, most of these units perform poorly at Ka-band and laser detection. Look closely at a detector's specification before your buy!

Before buying a radar detector, you must discover: the distance at which it can sense a signal generated by a law enforcement device, for example, its ability to ignore non-law enforcement signals like those generated by garage door openers.

### FALSE ALERTS: #1 COMPLAINT

Poor false alerts control is the #1 complaint that I hear from radar detector users!

A cheap radar detector will alert you to everything from the closest grocery store door opener, to the vehicle with a cheap radar detector. You can avoid this common headache by getting a higher end detector such as the [Escort 9500ix](#), [THE PASSPORT IQ](#), or the [ESCORT 9500CI](#), which use their GPS filtering capabilities to filter out 99% of the common false alert locations.

Many users of radar detectors complain about false alerts occurring when driving in urban areas. To appease these users, numerous companies have gone out of their way to limit their product's sensitivity in City Mode.

Since most speed traps are confined to short-range catches, this is an acceptable compromise.





## SUPERIOR PROTECTION

To maintain range, the best detectors (like the [ESCORT 9500IX](#), [ESCORT 8500 X50](#), [Bel Pro 500](#), [Bel STi Magnum](#), [Passport IQ](#), VALENTINE ONE and [ESCORT 9500Ci](#)) use specialized software to interpret and reject false alerts.

If you want the most from a radar detector, these are the units to buy. (Note: Review a radar detector's City Mode specifications. Ineffective radar detectors will have half the range as their superior competitors.)



## KA-BAND SENSITIVITY A MUST!

STALKER RADAR (APPLIED CONCEPTS INC.) is now the largest radar gun maker in the world. They pioneered digital Ka radar guns in early 1991.

Today approximately 65% of all new radar guns sales are Ka band, 15% K band and 5% X band. As this is the most difficult band for radar detectors to detect, cheaper radar detectors (and even some more expensive models) do a poor job at detecting this band.



This is because X and K-band have a much narrower bandwidth (X band is a mere 50 megahertz wide and K band is only 200 MHz wide). At 2600 MHz wide, Ka band is 1200 times broader than X band!

This wider bandwidth requires a detector to spend valuable time scanning back and forth to detect. This results in lower sensitivity and less range before your detector delivers a warning.

The best radar detectors made today for Ka band are the [Escort 9500ci](#), [ESCORT 9500IX](#), the [Beltronics STIR Plus](#), the [Passport IQ](#), the [ESCORT 8500 X50](#), the [Bel STi Magnum](#), [BEL PRO 500](#), the [9500CI](#), and the VALENTINE ONE.

[Escorts Solo S3](#) cordless radar detector is the best cordless detector made today to detect this band.



However because it is cordless, Ka range is less than the corded units. Range will not improve even if you do plug in a cordless radar detector, as the circuit board is designed to operate on batteries and cordless radar detectors are no match for corded.

You get what you pay for!

## CHAPTER EIGHT – RADAR DETECTOR FEATURES



### **Needed**

[Good False Alarm Control](#)

[Good Range](#)

[Good Audio Alerts](#)

[Good Mounting Features](#)

[Good Visual Alerting](#)



### **Important**

[Escort Live](#)

[AccuSweep](#)

[GPS Capabilities](#)

[TrueLock](#)

[Auto Mute](#)

[Auto Mode](#)

[Spectre Immune](#)



### **Good**

[Abbreviated Self Tests](#)

[IntelliMute](#)

[Multiple Threat Encounter](#)

[POP Radar Detection](#)

[Selectable Band Defeat](#)

[Tutorial Mode](#)



### **Helpful**

[360 Degree Protection](#)

[Compass](#)

[Frequency Display](#)



### **OK**

[9-10-11 Band Radar Detectors](#)

[Strobe Alert](#)

[VG2 - VG3 - Spectre Alert](#)



### **Worthless**

[SWS - Safety Warning System](#)

## NEEDED FEATURES

Good False Alarm Control



As mentioned, the chief complaint from customers is poor false alarm filtering. Some radar detectors will alert you to everything from the closest grocery store door opener, to the vehicle with the closest radar detector.

As an example, *AutoWeek Magazine* reviewed the [Valentine One](#) radar detector and referred to it as the "Chicken Little" of radar detectors because of all its false alarms and commented that the average user would end up tuning out all alerts.



You can avoid this common headache by getting a higher end detector that can eliminate 99% of all false alerts with its GPS capabilities such as the [Escort 9500ix](#), the [Bel Pro 300](#), the [Passport IQ](#) or the [9500ci](#) which use "Smart Filtering" and "Truelock" to filter out the false alerts.

Good Range



A good formula to use when determining if the range of your radar detector is adequate is "Capture Area x 6."

This formula allows you to detect the police in enough time to safely slow down and to observe the events taking place around you, to then determine the reason for the alert.

New Jersey Superior Court Judge Reginald Stanton's ruling which stated that an officer should not target vehicles further than 1000' could be used as a baseline.

However, very few officers know anything about this ruling and often start obtaining a vehicle tracking history the moment that they observe your vehicle.

Under normal circumstances, the longest range an officer can lock on and make any type of target vehicle identification on a flat roadway using radar is approximately 1/4 of a mile. Therefore using my formula, you would want to have a detector that has at least, 1.5 miles of detection.

However, there are also some variables in the where police speed enforcement is used, such as hills and curves. Therefore, if you live or drive in an area that has a lot of curvy, mountainous roads, you would want to increase your capture area to at least a four-mile distance.

Several impartial testing companies, such as *Speed Measurement Laboratories* and I, perform range tests of many of the more popular radar detectors made today.



When you examine these testing reports, note the type of road conditions that the detector was tested on, how the radar guns mounted, and if all the detectors were tested under the same conditions.

It is helpful when viewing these reports, to have an idea of the type of enforcement used in your area, or the area that you will be traveling in. As an example, unless you live and/or travel in NJ, you can just about ignore the X band testing.

Today, Ka band is the most popular band and often the most difficult band for a radar detector to detect.

Easy to Understand and Hear Alerts ★★★★★

If you do not hear or understand the different tones that your detector will use to alert you to different hazards ahead, you will have to take your eyes off the road to read the display.

It is recommended that you have your detector mounted in a location where this distraction is lessened; however it is never a good idea to take your eyes off the road ahead, even for an instant.

Some radar detector manufacturers offer voice alerts and some are even bi-lingual, offering both English and Spanish. However, some of the computer-generated voices will make it hard for you to understand exactly what the detector is trying to tell you.

Look for the speaker holes or slots. I recommended that you mount your detector on the dash, or as low to the dash as possible. Choose a detector that has a front mounted speaker.

Mounting



The effectiveness of a good mounting system for your radar detector and your vehicle is extremely important.

Most radar detectors come with windshield mounts that have suction cups, which attach to the windshield. Some of the mounts are made of plastic and some use metal.

It is important to adjust the angle of your detector to the windshield so it will point straight ahead.

If you are considering mounting your radar detector on a motorcycle, DO NOT use the mounting systems that come with the radar detector! I have had numerous contacts with people that learned too late that a windshield mount for your car is not designed to hold your detector securely on your motorcycle's windshield. Radar detector mounts for most motorcycle applications are offered on this page

#### Visual Alerts



Mid-range radar detectors normally use LED lights to display the different functions and/or alerts that are activated. Different colored lights make it easy to see at a distance what feature or warning is activated.

The higher end detectors use text displays and a visual bar graph to spell out exactly what the detector's alerts mean.

As an example, the [Escort 9500ix](#) and the [Beltronics Pro 500](#) will notify you with a letter such as X, K or Ka with a corresponding bar graph to indicate the strength of the signal. This method is much easier to read and understand than a row of LED lights indicating signal strength.

Today many of the leading radar detector manufacturers are offering blue displays as the new "hot color."

I have had several telephone calls from clients, many of them older, which have had a hard time seeing the red displays on their radar detectors. Research in the field of color blindness indicates that many people in the early stages of color blindness have a hard time in distinguishing the color red or green. Research also shows that the color blue is easier to read for people experiencing these symptoms. The colors blue and red are the easiest colors to see in most lighting conditions. However, the colors yellow and green have a tendency to vanish in direct sunlight

The [Escort Solo 3](#) uses an LCD display instead of an LED display. The purpose was to provide more information to the user in the display and to conserve battery life.

One problem happens when you use this detector in bright sunlight; you will not be able to read the LCD display. That makes this detector virtually useless on a motorcycle.

## IMPORTANT FEATURES

### Escort Live



In 2012, Escort Inc. introduced [Escort Live](#).

Escort Live uses Bluetooth technology to communicate with your iPhone or Android phone using the [Escort Live application](#).

Escort Live joins you into their community of other radar detector users across North America where you will be sharing real time alerts from other Escort Live users in real time.

Escort Live will also notify you of approaching photo radar, red light cameras and other published speed traps.

For more information about Escort Live and if your radar detector is Escort Live compatible, click here: <http://go.radardetector.org/escortlive>

### AccuSweep



There are three Ka frequencies commonly used by police in their radar guns, 33.8 GHz, 34.7 GHz and 35.5 GHz. Some of the Ka band photo radar guns use the additional 34.6 frequency at 5 milliwatts.

To scan the entire Ka band for these three or four radar frequencies the unit dramatically slows down and makes the detector prone to more false alarms. AccuSweep scans only these known frequencies and ignores the other frequencies.

### GPS Capabilities



There are several radar detector companies that offer GPS capabilities to their detectors; however these detectors are NOT equal in radar detection performance.

The advantage of having a detector that has the GPS is the additional feature of alerting to fixed traffic enforcement cameras and in some cases, the ability to sense false alert locations on its own and to program those out.

The Defender Database is currently the most accurate GPS database and is available on the [Beltronics STiR](#), [Passport IQ](#), [Bel Pro 500](#), the [Escort 9500ix](#) and the [Escort 9500ci](#) detectors. It is recommended that you download the latest updates for these units on a regular basis.

#### TrueLock



A feature currently available on only the [Passport IQ](#), the [Escort 9500ci remote](#), the [Bel Pro 500](#) and the [Escort 9500 ix](#) radar detectors. This feature allows the radar detector to automatically add false alert locations into its database thereby eliminating all false alerts in the areas you normally drive.

#### Auto Mute



There is nothing more annoying then listening to a radar detector constantly going off. Auto Mute is designed to automatically mute the audio of your radar detector to avoid this problem.

As an added feature, the [Beltronics GX65](#), the [Escort 9500ix](#), and the [Bel STi Magnum](#) include the *Smart Cords* that have a mute button right on the power cords to enable you to mute the audio without reaching to the detector.

#### Auto Mode



Most radar detectors have at least one city mode and highway mode.

The idea is that when you are driving in the city, switch the detector over to city mode to reduce the radar detectors sensitivity and reduce the chances of all the false alerts. Then, when you are on the highway, switch the detector over to Highway mode to increase the sensitivity detecting Smokey at a greater distance away and allowing you ample time to slow down.

As you can imagine, many people forget to switch from mode to mode as their driving environment changes. Auto Mode to the rescue!



This feature adds a third sensitivity range to your radar detector which allows it to sample your driving conditions and adjust the radar detector accordingly.

#### Spectre Immune



If you live and/or drive in areas where radar detectors are illegal (Washington DC and Virginia), or drive a commercial vehicle that weighs over 10,000 pounds. An important feature of your radar detector should include the ability to defeat the Spectre RDD.

Currently, there are only four detectors made today that can defeat the [Spectre RDD](#) and they are the [Escort Redline](#), [Beltronics STi Magnum](#), the [STiR Plus](#) and the [Escort 9500ci](#).

#### Abbreviated Self Tests



When you power on many radar detectors, the unit goes into self-test mode. It will go through each radar and laser band and then the audio and lamp test to make sure that the unit is working properly.

If there is a problem with the unit, it should stop in this phase and display a calibration error or that a function is not working. Some customers find that this test is annoying, especially with units that take a long time to "boot up."

Therefore, some radar detector companies like *Escort* and *Beltronics*, offer an abbreviated self test that you can program in the advanced programming area of the detector.

## GOOD FEATURES

#### IntelliMute



Only available on *Cobra* detectors are mutes and false alarms when stopped in traffic or driving slowly. To engage this feature, you first must perform a software adjustment.

### Multiple Threat Encounter



Occasionally multiple law enforcement devices will emit signals simultaneously, or traffic enforcement can be taking place in a location that you have previously identified as having a high false alerts.

Some radar detectors will display the number and the strength of these "multiple threats." The Escort and *Beltronics* call this feature their "*Expert Meter*" and both can detect up to nine law enforcement devices at one time.

### POP Radar Detection



*MPH Industries* developed their *BEE III* with POP mode radar gun (also known as the *Super Bee*) to be undetectable to radar detectors.

*MPH* admits that the use of POP is unreliable and that officers should only use this mode to obtain an "estimate of speed," but this recommendation is not always followed.

POP mode works by sending out a quick "burst" of pulse radar at approximately 67 milliseconds. This burst of signal will not be detected by over 85% of the radar detectors in use today.

Nevada and New York State are the two states that have contracted with *MPH Industries* for their POP Mode radar guns.

Many of the higher end detectors come with the POP radar feature de-activated. The reason the POP feature is once activated, you will receive many more false alarms. This is because the detector has to react so fast to obtain a POP alert, that the detector does not have an opportunity to properly filter the alert as a false alert.

To active the POP feature, you simply press the two buttons on top of the detector and go into the advanced programming mode to active POP.

Since *MPH Industries* has added the POP feature to their radar guns as a way to "promote catching speeders with radar detectors" to police departments, they have begun "specking out" other radar gun manufacturers that do not have this feature.

This is why today, when you are shopping for a new radar detector, you'll be bombarded with claims of POP radar detection.

A popular saying on the *RadarDetector.net* forum is "POP is POOP" and your chance of ever getting hit with a POP radar signal is the same as getting hit by a bolt of lightning on a clear sunny day.

### Selectable Band Defeat



New Jersey has the sole remaining state contract for X band radar guns. However, there recently has been a shift in Ohio, with their State Police now using light bar mounted X band radar guns.

Also, during a motorcycle trip to Mount Rushmore in South Dakota, I found the United States Park Police were still using an antiquated X band radar gun. Unless you live in these areas or are planning a trip there, you can feel comfortable disabling X band from your radar detector.

There are several overseas dealers that sell *Escort* or *Bel* radar detectors. They claim that their radar detectors are modified for use in their country and charge higher prices.

The fact is that they disable X band and enable the European K band, which takes seconds to do. To enable this feature on your *Escort* and/or *Beltronics* radar detector, press the mute and mode buttons on top of your detector at the same time, then use the mode button to navigate.

### Tutorial Mode



If you have a new radar detector and you didn't read the manual, tutorial mode to the rescue! Although you will have to read the enclosed "quick start" guide provided with some radar detectors to learn how to activate this feature, the detector will cycle through each of its audio and visual alerts, allowing you to see how the unit operates and what each light does.

### 360 Degree Protection



True 360-degree protection advertised by many radar detector companies is in itself just a worthless marketing ploy.

As an example, when I would certify new officers in the operation of traffic radar, I would have them stand on the side of the road pointing a radar gun in the direction of an approaching vehicle that was traveling at a known speed. As this vehicle approached the officer, the speed on the radar gun would decrease. This effect is known as the cosine angle effect and what this basically means is that the greater the angle, the less accurate the radar gun becomes.

This always works in the favor of the target vehicle and never in the officer's favor. When an officer is at a 90' degree angle from the target vehicle, the radar gun no longer sees the target vehicle as a moving vehicle, but as a stationary object.

What is important with a radar detector is the ability to detect radar in front and to the rear. Most, if not all radar detectors, have a bi-directional antenna that allows this to happen. However, some detectors detect better in the rear than others.

As an example, rear detection comes into play when officers park on an entrance ramp to a highway shooting cars moving away or there is an officer approaching from the rear. All of your higher end detectors will have satisfactory rear detection to see this officer. However, some cheaper models may not alert at all.

## HELPFUL FEATURES

### Compass



Many of the manufacturers of lower end detectors add extra features such as compasses to their units to make their units more desirable to the consumer.

If it is good radar detection that you require and do you need a compass, consider purchasing a standalone compass.

### Frequency Display



As discussed in *AccuSweep*, there are known frequencies that police officers use with their radar guns. *Beltronics "Tech Mode"* and *Escort's "Tech Display"* can display the

exact frequency of the incoming radar signal so the driver can distinguish between a false alert, and a true alert.

### OK Features

#### 9-10-11-12 Band Radar Detectors



Another marketing ploy that seems to be a favorite of [Cobra Electronics](#) and now followed by *Uniden*, is to advertise their units as having the ability to detect additional bands that do not exist.

They have taken the three commonly used radar bands, i.d., the laser band, the SWS (Safety Warning System band) and now the *Strobe Alert* (ability to allow the detector to detect emergency vehicles with optical pre-emption transmitters used to trip the traffic lights from red to green) and sliced them all up to make these 9-10 and 11 band receivers.

Truth is that there are still only three radar bands and one laser band used in the USA. Don't fall for this ploy and buy a cheap radar detector!

#### Strobe Alert



Another feature found on [Cobra radar detectors](#) is *Strobe Alert*. This feature allows the detector to detect emergency vehicles with optical pre-emption transmitters used to trip the traffic lights from red to green

#### VG2 - VG3 - Spectre Alert



(DO NOT CONFUSE THIS WITH SPECTRE IMMUNE)

In Virginia, Washington D.C. and in countries where radar detector use is outlawed, police use Radar Detector Detectors (RDD) to detect radar detectors.

The VG2 was the first RDD used by police to detect radar detectors. Radar detector manufacturers responded by moving the frequency of their oscillators, thus defeating the VG2. Today, VG2 RDD's are used by very few, if any, police departments.

Several radar detector manufacturers claim that their radar detectors are immune to VG3. One problem, there is no such thing as VG3. A company called *Stealth Micro Systems* has developed a RDD that is now in use by police departments called the *Spectre*.

Several radar detector companies, including *Cobra*, advertise that their radar detectors are immune to the *Spectre 1*. One problem, all the *Spectre 1* models have now been upgraded to the *Spectre 2*, and recently the *Spectre 3* model has emerged.

Currently, there are only four radar detector that can defeat the *Spectre* and they are the [Bel STi Magnum](#), the [Escort Redline](#), the [Bel STi Plus Remote](#) and the [Escort 9500ci](#).

## WORTHLESS FEATURE

SWS - Safety Warning System



I call it the SMS for show me a system!

*Innovative Technology Systems* developed the *Safety Warning Systems* that was supposed to form part of the *National Highway System*. The idea was to have transmitters located on the highways that would transmit warning messages to approaching vehicles. The idea was brilliant, the follow through poor.



I know of no police department or highway department that has ever purchased one of these transmitters. If you go to the company's Web site, the last update was made in October 2001.

Someday this technology may be available, but for now, do not let it influence your buying decision.

## CHAPTER NINE – RADAR SCRAMBLERS DON'T WORK!

When people ask why I do not recommend radar scramblers, I always answer the same way: 'I've never found one that works!'

First, let me explain what the differences are between passive and active jamming devices.

### PASSIVE JAMMERS

Passive jammers are designed on the theory that when an officer shoots your car with either a radar or laser gun, the signal from this radar/laser gun is reflected back to the officers device, with an added FM chirp.

The problem with this theory is that if you are further away than three feet from the police radar gun, the reflected signal is not strong enough to jam the gun.

I have become so frustrated at the companies that manufacture these devices to defraud the public; [I offer ANYONE a \\$50,000.00 reward](#) that can show me one of these devices that actually work!

I have collected complaints from customers that have been submitted to the [EL PASO BETTER BUSINESS BUREAU](#) and the [FEDERAL TRADE COMMISSION](#), along with news stories from [ABC NEWS](#), [20/20](#), [EXTRA](#), [AMERICAN JOURNAL](#) and other media outlets that have performed numerous tests on these devices and also found that they do not work as advertised.



I also have been interviewed by several news organizations regarding these products such as [KYTV](#), [WWOR](#) and [FOX NEWS](#).

### ACTIVE JAMMERS

In contrast, active jammers send out their own radio and/or laser signal that is on the same frequency as the police radar/laser gun.



There are two types of active jammers, radar jammers and laser jammers.

### ACTIVE RADAR JAMMERS

Scorpion was only one company in the USA that was manufacturing an active radar jammer. In 2006, the [FEDERAL COMMUNICATIONS COMMISSION](#) threatened the company with a \$50,000.00 fine along with jail time, if they continued. They have since ceased production.



You still may find some of these units in auction on E-Bay, I would NOT RECOMMEND buying one for two reasons:

- 1: One major problem with the Scorpion is that it would fall out of frequency every couple months, which would require sending the unit back to the manufacturer. As the manufacturer is out of business, you will NOT be able to have the unit calibrated!
- 2: The use of the Scorpion is a federal crime in the USA. If you're found using one, you could be sentenced up to five years in prison!

### ACTIVE LASER JAMMERS

There are several good active laser jammers that do work very well at jamming police lidar and there are no federal laws prohibiting their use.

However, several states that include South Carolina, Nebraska, Minnesota, Utah, California, Oklahoma, Virginia, Colorado, Illinois, Texas and Washington DC have passed their own laws prohibiting their use.

My two top picks for active laser jammers are the [Blinder HP-905](#) and [Laser Interceptor](#)



## CHAPTER TEN – BEL VS. ESCORT VS. VALENTINE ONE

I receive countless e-mails and telephone calls every day asking... "Which is the best radar detector made today ... [ESCORT](#), [BELTRONICS](#) or [VALENTINE](#)"? In fact, this same topic is hotly debated among radar detector users on [RADARDETECTOR.NET](#), a radar detector enthusiast forum.

If you're in the market for a new radar detector, your first question should not be who makes the best radar detector, but which radar detector is best for me based upon **MY** driving conditions.

### MY RECOMMENDATIONS FOR ROAD WARRIORS

If you consider yourself a road warrior traveling thousands of miles a year on our interstate highways, your detector of choice may have been the Valentine One.

For the past several years, the Valentine One has been considered the "[LEADER OF THE PACK](#)" by many radar detector enthusiasts as having the best range and sensitivity.

However, that has all changed with the introduction of the new [Redline Escort radar detector](#) introduced in August/September of 2009.

The best way to describe the [Redline](#) would be to call it a high performance racecar stripped of all its bells and whistles.



In July 2009, I did a head to head comparison of the [Redline](#) and the Valentine One during a 8,000 mile coast to coast, border to border road trip.

A recap of this test showed:

1. The [Escort Redline](#) outperformed the Valentine One in over 80% of the encounters. In several of these encounters the Redline alerted a quarter mile prior to the V1.

2. The [Redline Radar Detector](#) had double the range of the Valentine One in detecting the low powered K band Redflex photo radar vans operated in Arizona.
3. The [Redline](#) is 100% stealth to all radar detector detectors (RDDs) including the Spectre; the Valentine One is not.

Would I recommend the [Redline](#) to the average radar detector user? **No!**

The [Escort Redline](#) is designed for extreme range and sensitivity for those traveling long distances via our Interstate Highway system; such as commercial truck drivers. Both the [Redline](#) and V1 do not have the extra "bells and whistles" that I've come to enjoy in a radar detector such as GPS filtering and photo enforcement alerts found on the Escort 9500ix.

Another top pick of mine in the road warrior category is the [Beltronics STiR Plus](#) remote mounted radar detector.

The [STiR Plus](#) is a remote mounted radar detector that uses the same M3 platform as the more expensive [Escort 9500ci](#) but it does NOT come equipped with the [ZR4 laser shifters](#).



This then allows you to purchase the more effective [Laser Interceptor](#) or [Blinder Laser Jamming system](#) for your installation.

Another advantage is that the [Bel STi Plus](#) remote is stealth to all radar detector detectors including the Spectre.

## MY RECOMMENDATIONS FOR TYPICAL DRIVERS

The most common complaint I hear from radar detector users are "false alerts". If you find yourself in the same category, then a long range radar detector such as the [Redline](#) or Valentine One is NOT FOR YOU!

What you should concern yourself with is the filtering capabilities of the radar detector to snuff out known false alert locations through GPS filtering.

Another concern should be the ability for your radar detector to alert to the fixed photo enforcement cameras such as photo radar and red light cameras that are proliferating throughout the US and Canada.

My number one choice in this class is the [Passport IQ from Escort](#). When I was first introduced to the Passport IQ my immediate response was to call it “a game changer” as it combines a high-end radar detector into a fully functional dash mounted radar detector.



The [ESCORT 9500IX](#) and the [BELTRONICS PRO 500](#) is virtually the same radar detector with the following exception:

The [9500IX](#) is available with a blue display and the [Bel Pro 500](#) has a red display. Both units also come equipped with the GPS photo enforcement database installed.



Less expensive alternatives to the 9500ix and the [Bel Pro 500](#) are the [Escort 8500 X50](#) and the [Bel Pro 300](#).

The [ESCORT 8500 X50](#) and the [BELTRONICS PRO 300](#) are also very similar in features and performance with the following exceptions:

- The [8500](#) is available in red or blue display with the blue display at a higher price. The reason for the price difference in the blue display is that the gases used to make the blue cost considerably more than the red.
- The [Pro 300](#) has voice and a better tech mode (display of technical information such as voltage received at the radar detector)
- Neither of these units have GPS filtering or the photo enforcement databases.



But as far as performance, the [ESCORT 8500 X50](#) and the [Beltronics Pro 300](#) are about identical.

In 2012, a new radar detector from BELTRONICS was added to the mix, and that is the [BEL STI MAGNUM](#).



The [BEL STI MAGNUM](#) is designed from the ground up specifically for the professional driver.

The [STi Magnum](#), the [ESCORT 9500ci](#), the [Bel STi R Plus](#) and the [Escort Redline](#) are the only radar detectors made today that can defeat the Spectre radar detector detectors, which are used by police where the use of a radar detector is illegal.

Radar detectors are only illegal in the USA in Virginia, Washington DC, on military bases, or in any commercial vehicle weighing over 10,000 pounds.

If you do not drive in areas where radar detectors are illegal, the added feature of being [SPECTRE](#) immune should not be a deciding factor in your purchase.

The [Escort 9500ix](#) and the [Escort 9500ci](#) have GPS tracking capabilities that will alert you of approaching traffic enforcement cameras such as red light cameras and also the ability to program out common false alert locations.

The only advantage the [VALENTINE ONE](#) has over any of these detectors is their patented dual antenna system, enabling its directional arrows identify the direction that the radar is coming from. However, all radar detectors today have the ability to detect radar in a 360 degree pattern.

Valentine One's patent on their dual antenna system will expire in early 2011 and there are rumblings in the industry that there will be new players offering this feature.

One disadvantage of the V1 is the increase in false alerts. In fact, [AUTOWEEK](#) magazine dubbed the Valentine 1 the "[CHICKEN LITTLE OF RADAR DETECTORS](#)" in its published comparison of detectors.

As an example, during my head to head comparison of the V1 and the Escort Redline, the V1 falsed 8 times while the Redline falsed only once during our trip through Utah.



Spectre



Escort 9500ci



Valentine One

**AutoWeek**

## CHAPTER ELEVEN – PHOTO RADAR ENFORCEMENT

### THE TICKET IS IN THE MAIL

Photo enforcement is used with several different methods, but all use a computerized photo system.

Photo speed enforcement is set to photograph vehicles traveling above a predetermined speed (5 to 10 miles-per-hour over the speed limit).

Some fixed speed cameras use sensors that are embedded in the roadway to measure your speed; others use radar.

Red light cameras also use sensors in the roadway to capture your violation.

The results are reviewed and a ticket is mailed. Each image contains the date, time, location and vehicle speed. The photo radar company processes the data and gets the owner information.

There are five different types of counter measurement devices marketed that claim abilities to defeat the enforcement cameras.

### GPS BASED WARNING SYSTEMS

Very effective with Fixed Based Camera Systems.

These devices have become very popular in European countries over the past several years, especially where radar detectors are illegal and they are now just beginning to become available in the US market.

The way this system works is that you download the latest locations of the speed enforcement cameras into your GPS system from the provider. When you approach the location of a known camera, the GPS warns you to slow down.

The [NAVALERT](#) was the first portable camera based system for the USA shortly followed by [SPEED CHEETAH USA](#) who developed the [GPS MIRROR](#) and then the new [Cheetah C-50](#)



The [Cheetah C-50](#) uses the Trinity Database, which we found to be very accurate.

GPS Angel has a dash mounted red light/speed camera-warning device that retails for \$99.00. I tested it and was disappointed in the unit's poor performance.

If you already own a Garmin or Tom Tom GPS or even a smart phone then consider getting the [Phantom Photo Enforcement POI database](#). Their POI database covers all North American photo enforcement cameras and known speed trap locations.



Several radar detector companies have since integrated GPS based traffic enforcement camera locations into their detectors such as [COBRA](#), and [ESCORT](#).

However, do not be fooled by the lower end detector companies with their GPS capabilities.

I attempted to test [COBRA'S](#) GPS based radar detector during the [FIREBALL RACE](#). The detector gave almost constant false alerts and was impossible to use.

The [Escort Passport IQ](#), the [Escort 9500ix](#) the [Bel Pro 500](#) and [Passport IQ](#) are all top performing radar detectors and you have the ability to download monthly database updates to your radar detector.



In 2012, Escort Introduced [Escort Live](#) that interfaces most of their radar detectors and Beltronics units into their Escort Live Network through your iPhone or Android, using a Bluetooth enabled smart cord.

[Escort Live](#) not only alerts you of approaching photo enforcement cameras, but will also alert you to other reported real time threats from other members of the Escort Live community in real time.

To find out if your current radar detector is Escort Live compatible or a list of radar detectors that are, click here; <http://go.radardetector.org/escortlive>

## RADAR DETECTORS

Very effective against radar based systems (Detector must have high sensitivity).

There are two different methods used in the USA that speed enforcement cameras use to measure your speed, **radar** and **embedded sensors**.

Commonly referred to as photo radar, these speed enforcement cameras use radar to measure speed. A good radar detector such as the [ESCORT 9500ix](#) the [ESCORT 8500 X50](#), the [V1](#), the [BELTRONICS RX65](#) or the [BEL STI MAGNUM](#) will detect these types of enforcement cameras in enough time for you to slow down.

Lower end brands such as [COBRA](#) that have low sensitivity may not warn you well enough in advance to slow down and avoid the flash.

However, radar detectors will **not work** with speed enforcement or red light cameras that use embedded sensors in the roadway to measure speed.



## PLATE COVERS

Somewhat effective and a "ticket magnet" in areas where illegal.

Plate covers can be a less expensive alternative if they are allowed in the areas you drive, such as the [SUPER PROTECTOR](#).

These covers go over your license plate(s) and keep the plate visible while you are directly behind the vehicle. However, if you are offset on an angle, where the photo enforcement cameras would be positioned, a portion of your license plate is blocked.

Washington D.C. has strict laws regarding these covers and violations can cost well over \$300.00.





Many people use and buy these covers. You probably see them as you drive around your local streets. It is recommended that you check with your state and local departments on the laws in your area regarding these covers before applying them. These types of covers are **not effective** against motion video cameras that are sometimes used in stationary photo radar locations and at toll booths.

## FLASH BACK DEVICE



Ineffective

A flash back device installs on your license plate and senses the flash of a photo enforcement camera and simultaneously flashes its own strobe light onto the license plate, washing out the numbers to the photo enforcement cameras.

The only flash back device being sold today is the [SCD Speed Camera Eliminator](#) marketed by Tiger Lilly products and 1stRadarDetectors.com.

This company is very deceptive in their advertising **and I have been threatened with a lawsuit** for calling them out and saying that **this product is a complete scam**.

If you're considering this type of unit please read my full review of this product here: <http://www.radardetector.org/reviews/scd-speed-camera-eliminator-review/> before you buy!

## PHOTO SPRAY

Ineffective

An ineffective method of beating the photo enforcement cameras is the photo spray such as the [PHOTO BLOCKER SPRAY](#).

When I tested this spray against various traffic enforcement cameras in use today, the spray was totally ineffective.





## CHAPTER TWELVE - RADAR DETECTOR TESTING

As being a certified radar detector instructor and being involved in the radar detector industry since 1997, I have tested hundreds of units from different manufacturers and I own and have access to a wide arsenal of police radar and laser guns.

I have also participated with other research and development company events such as the Radar Detector Shoot out held by Speed Measurement Laboratories held in El Paso and hobbyist groups in the industry such as the Guys of Lidar tests.

There are several methods we use to test our products:

### X-, K- AND KA-BAND TESTING

These tests are standard in the industry and have been used for over 25 years.



### FILTERING

You do not want your radar detector going off every time neighbor uses his garage door opener.

### LASER TESTING

Which Laser Jammer Stacks up!

X-, K-, KA-Band Testing



**The following tests** were performed on a straight five mile stretch of roadway located in the desert, about 17 miles south of Wickenburg, AZ.

### **X BAND TESTING**

(10.475 to 10.575 ghz) is the oldest radar band in use today. It is estimated that only 15% of the law enforcement radar guns still utilize this band.

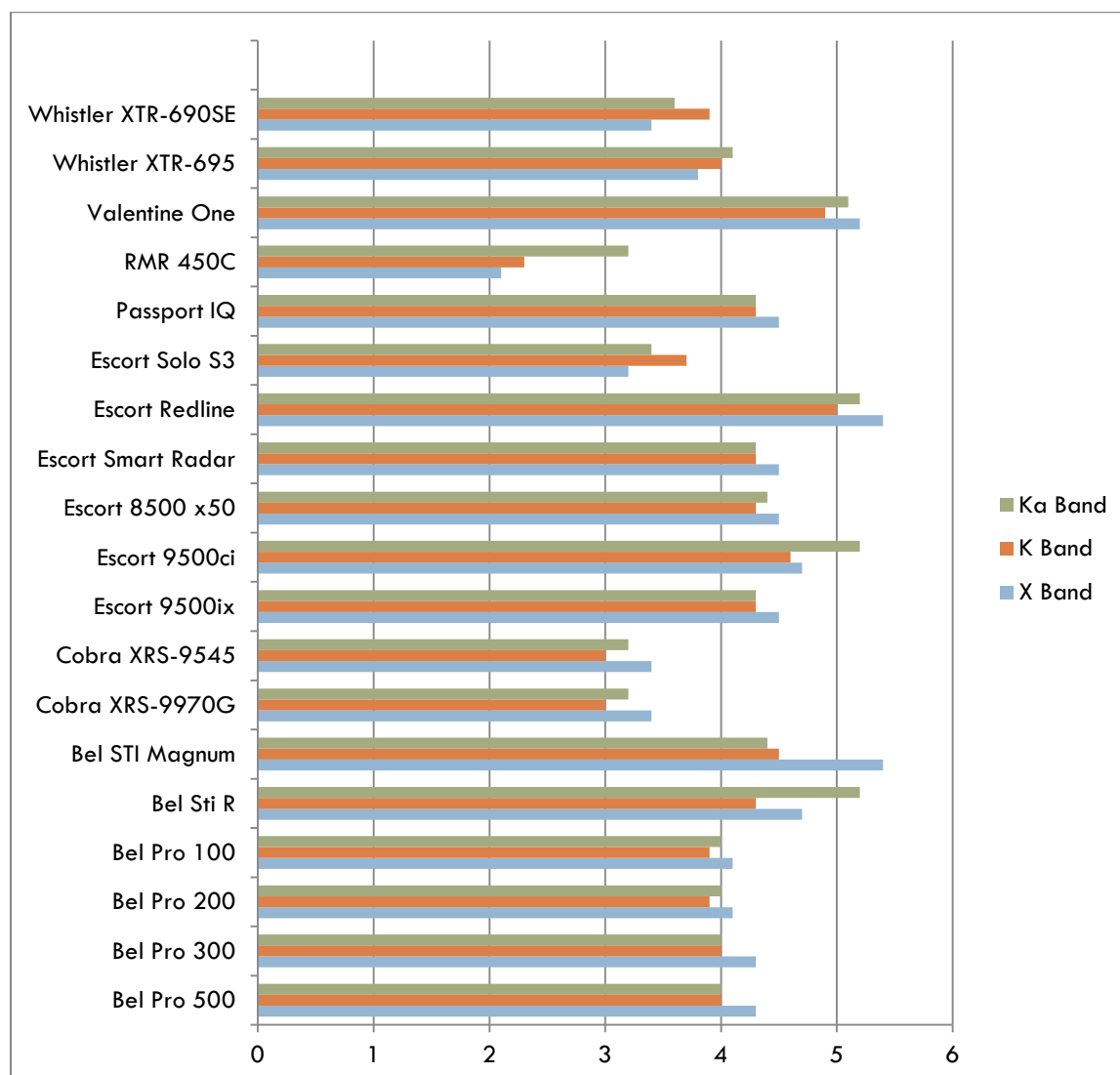
The New Jersey State Police, several police departments in Ohio and Indiana and the US Park Police are the only agencies Radar Roy knows of that use this band as their preferred radar band of choice.

### **K-BAND TESTING (24.0 TO 24.25 GHZ).**

K-band was introduced in 1976 and is currently 60% of the traffic enforcement radar used by police in the USA today.

### **KA-BAND TESTING (33.4 TO 36.0 GHZ).**

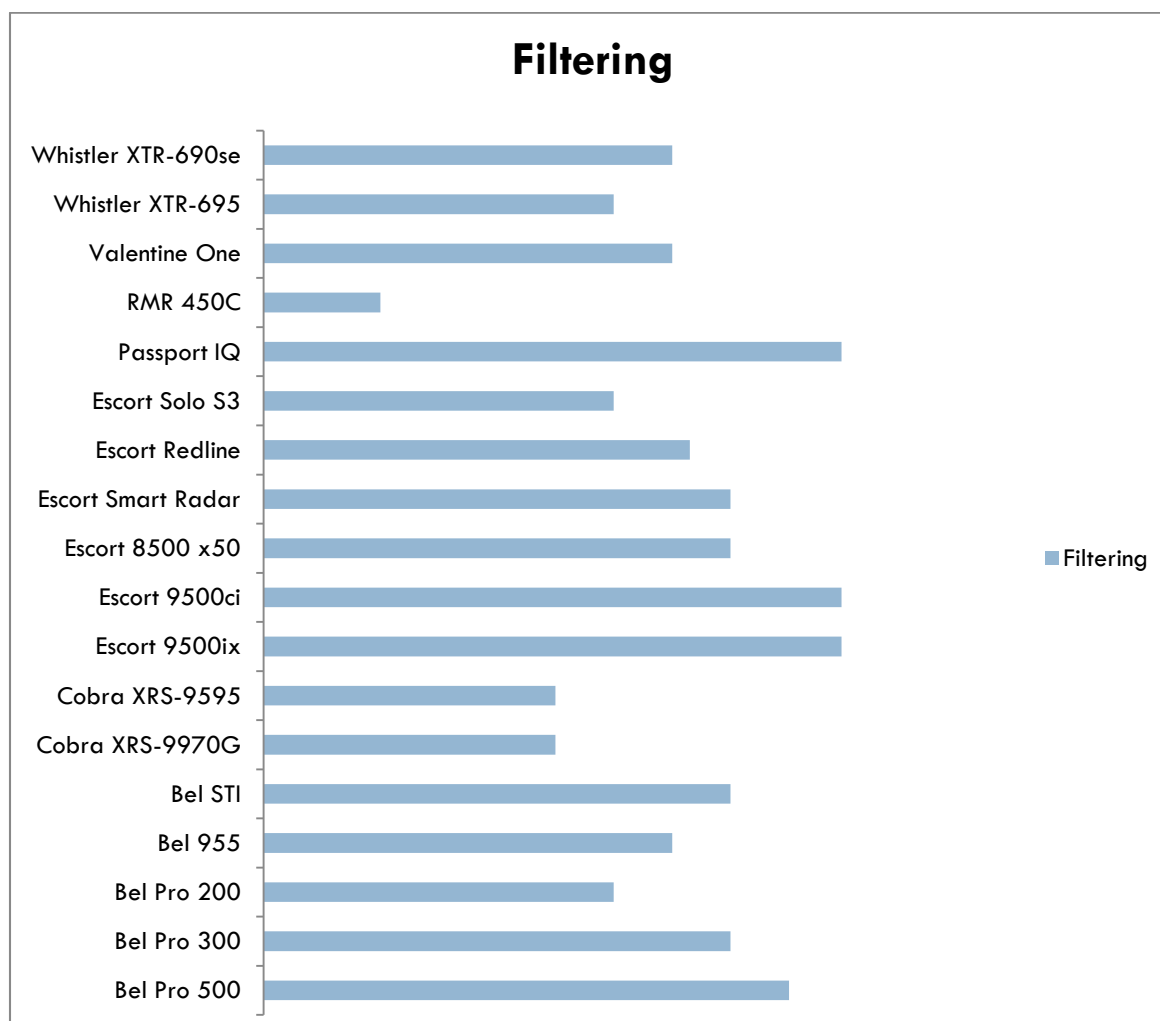
Ka-band is the newest band and it is rare to have false alerts on this band. It is also harder for radar detectors to detect police radar devices on this band. Currently, this band is 25% of the traffic enforcement radar used by police in the USA today.



## FILTERING

I feel that the most important feature of a radar detector is its ability to filter out stray harmonic frequencies that would also set off your radar detector as a "false alert."

Many of the cheaper radar detectors have no filtering and they will be set off as you pass every supermarket, bank and gas station and it will come to the point that you will either turn the radar detector off or ignore its warnings.



## CHAPTER THIRTEEN – CONSUMER WARNING!

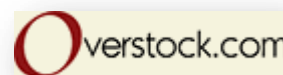
### NO WARRANTY - COUNTERFEIT PRODUCTS!

Each week I am contacted by someone who purchased an [ESCORT/BELTRONICS](#) radar detector or a [Blinder laser jammer](#) from an unauthorized dealer and found out that they do not have a manufacturer warranty or they have purchased a counterfeit product.

[ESCORT](#), [BELTRONICS](#), [BLINDER](#), [WHISTLER](#) and many other companies have a disclaimer in their manual that states "If your purchase is from an unauthorized dealer or Internet auction site including EBay, U-bid or other unauthorized dealer" your product will be excluded from warranty!

### REMANUFACTURED UNITS!

In December 2006, I questioned a sales representative from [OVERSTOCK.COM](#) regarding the [ESCORT](#) and [BELTRONICS](#) radar detectors that they were selling on their Website. He admitted to me that the detectors were remanufactured units.



When confronted about not having a factory warranty, he told me that I could purchase a warranty through them for \$39.95. Adding up their sale price with their warranty, the remanufactured [8500](#) price exceeded the cost for a new unit by \$10.00!

### MORE COUNTERFEITS!

Also in November 2007, [EBAY'S](#) largest [ESCORT/BELTRONICS](#) seller "I-Net Distributors" was raided by the FBI and a complaint was filed in the US District Court alleging that they "obtained their radar detectors through a false designation of origin and violated Beltronics trademarks through counterfeiting."



### BUY ONLY FROM AUTHORIZED DEALERS & DISTRIBUTORS

I recommend that you make your buying decision with reputable and authorized dealers and distributors only, such as [RadarBusters](http://RadarBusters.com).



## CHAPTER FOURTEEN – RADAR DETECTOR HALL OF SHAME

- Any radar detector/scrambler distributed or sold under the Rocky Mountain Radar name. I consider Michael Churchman and his crew at RMR the “scum of the industry.”

They are only out for one thing and that is to steal your hard earned cash! There are numerous complaints filed against this company with the El Paso Better Business Bureau and civil charges are pending against the company by the Federal Communications Commission.



I feel so strongly about my statement, that [I offer a \\$50,000.00 reward](#) for ANYONE that can show me one of their radar/laser scramblers that work!

Another word of warning ... if you come across any company or Web site selling their devices, RUN. If they do not do the research in testing speed countermeasure devices and have the knowledge of what devices work, they are out to scam you.

- Any radar detector marketed/sold by RadarShield Technologies including the Ghost, the Ghost Pro or their SkyEye. Detectors similar to these were being marketed to US distributors at the 2009 CES (Consumer Electronic

Show) by Rayee Technologies and these detectors do not hold FCC Part 1 certification, are cheap knock off's of Escort/Beltronics radar detectors, and infringe on patents and trademarks of various US manufacturers.

- Any radar detector product marketed/sold by Ultimate Radar Detectors, Jason Blair including the BTST Radar Detector.
- The SCD Speed Camera Eliminator marketed by Tiger Lilly Products and John Turner. In my opinion the SCD Speed Camera Eliminator developed and marketed by Tiger Lilly Products and John Turner, 1stRadarDetectors.com are total scams. I have a full review of this product here:  
<http://www.radardetector.org/reviews/scd-speed-camera-eliminator-review/>
- Any radar detector manufactured by Cobra Electronics, which is perhaps the largest radar detector company in the world today. In my countless radar detector tests, their products have always come near the bottom, just above RMR.

During a cross-country race in the Fireball, I attempted to test their most expensive radar detector, the XRS-R9G. It falsed so often that my co-driver and I pulled it off the windshield in only 45 minutes.



## CHAPTER FIFTEEN – RADAR ROY'S TOP RADAR DETECTOR PICKS

### RADAR DETECTORS

#### OVER \$1000.00

**Escort 9500ci**: The #1 radar detector and laser jammer combo. Price \$1599.95 (remote unit)

**Beltronics STiR Plus**: The Bel STi MagnumR Plus uses the exact same M3 radar detector platform as the Escort 9500ci but does not come equipped with the ZR4 laser shifters. Therefore, with this unit, you can add a more powerful laser jamming system such as the Laser Interceptor or Blinder.



#### \$600 - \$1000.00

**Passport IQ**: Combo dash mounted radar detector, GPS and MORE! The radar detector performance of the IQ is compatible to that of the Escort 9500ix. The Passport IQ retails for \$649.95.

**Escort 8500ci**: The Escort 8500ci is an affordable remote mounted radar detector that is based upon the 8500 x-50. Typical install time in less than an hour



#### \$400.00 TO \$600.00 RANGE

**Escort 9500ix**: GPS intelligent radar detector. Price \$499.95\* for blue display.

**Escort Redline**: High performance stealth radar detector. Longest range of any radar detector ever tested. Price \$499.00

**Bel STi Magnum**: Stealth radar detector, immune to all radar detector detectors. Superior Ka range. Price \$499.00



[Escort Smart Radar](#): Cross over radar detector (remote/dash mounted) based on the 8500 x-50 platform. [Escort Live compatible](#).

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#### **\$299.95 TO \$399.95 RANGE**

[Beltronics Pro 300](#): One of my favorite detectors, great range and sensitivity! Price \$299.95 for red display

[Escort 8500 X50](#): Great Ka and K range, good filtering. Price \$299.95 for red display, \$339.95\* for blue display.



BEL RX65

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#### **\$199.95 TO \$299.95 RANGE**

[Beltronics Pro 200](#): Good range and performance features similar to that of the Bel Pro 300.



Beltronics V995

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#### **\$150 TO \$199.95 RANGE**

[Beltronics Pro 100](#): Good range and performance features similar to that of the Bel Pro 300.

A Best Buy for detectors costing less than \$200.00!

[Whistler XTR-695](#)



Whistler XTR-695

[SE](#): Good performing radar detector for the price! Fair range and sensitivity.

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#### **UNDER \$150.00 SAVE YOUR MONEY!!**

During my ten year career in the speed countermeasure industry, I have NEVER found a radar detector costing less than \$150.00 that I would keep on own my dash!

The radar detector you buy only has to save you from ONE TICKET to pay for itself, consider making a wise investment. Get something that you can trust and depend upon.

\* No differences in performance blue over red. Blue LED's are more costly, thus the price difference.

## LASER JAMMERS

As ninety-five percent of all lasers are shot to the front of the vehicle, a two head system mounted to the front is normally sufficient.

In areas such as the DFW area of Texas, officers choose to shoot laser from highway overpasses, targeting the rear of vehicles as they pass. Therefore rear protection would be advisable in this area.

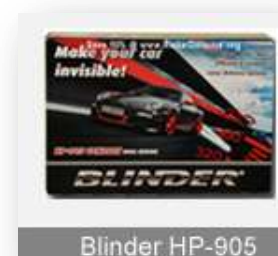
To provide full protection on large profile SUV's or trucks it would be advisable to install a four head system to the front of the vehicle to avoid punch through.

**#1 Pick- Blinder HP-905:** The Blinder HP-905 is also an active laser diode system and is available in either a two head version, 3 head version or a four head version. To read my full review of the Blinder HP-905 click here:

<http://www.radardetector.org/reviews/blinder-hp-905-compact-laser-jammer-review/>

**#2 Pick-** The Laser Interceptor is an active laser diode jamming system. The LI is available in either a two head or four head configuration.

**#3 Pick - Escort ZR4:** The Escort ZR4 is also an LED based system and is very efficient at jamming police laser. The system comes with three heads --- two for the front and one for the rear.



**For a limited time subscribers to my Buyers Guide can save 10% on Radarbusters.com.**

As a special gift to the subscribers of my Radar Detector Buyers Guide I have obtained **500 Gift Cards** that you can use on the RadarBusters Website! This is a limited time special, so act fast; when the last card is used the promotion will end.

**To active your card you must click on the image below or go to:**  
<http://www.Go.RadarDetector.org/radarbusters> **and** use promo code: **RADARROY** at Checkout.



## CHAPTER SIXTEEN – CLOSING

### IT'S BEEN A LONG JOURNEY!

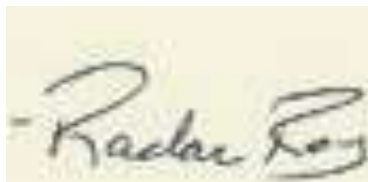
Many in the industry have attempted to silence me. First, I was threatened with lawsuits. Then a radar detector/laser jammer testing venue held in 2007 was sabotaged. This journey has even gone as far as performing criminal acts against me, my business and my family.

However, with my thirty plus years of experience and knowledge, it is my desire that this E-Book has helped you select the best radar detector or laser jammer on the market today.

### I WOULD LOVE TO HEAR FROM YOU!

If you should have any comments and/or questions, I welcome you to contact me directly by e-mail at [RadarRoy@RadarDetector.org](mailto:RadarRoy@RadarDetector.org).

### DRIVE SMART AND TICKET FREE!

A handwritten signature in black ink on a light yellow background. The signature reads "Radar Roy" in a cursive, stylized font.